<center>**Amendments to the Claims**</center>

1. – 29. (Canceled)

30.   (New) A method for transmitting information into a shared-communications channel, comprising:

receiving, at a lower medium access control entity, a first portion of a first frame, wherein the first portion is less than a frame length;

storing the first portion of the first frame in a first buffer;

initiating a transmission of the first portion of the first frame into a shared communications channel;

responsive to initiating the transmission, receiving at the lower medium access control entity a second portion of the first frame;

storing the second portion of the first frame in the first buffer.

31.   (New) The method of claim 30, wherein the first buffer has a capacity less than the frame length.

32.   (New) The method of claim 30, further comprising:

upon completion of the transmission of the first portion of the first frame, transmitting the second portion of the first frame into the shared communications channel.

33.   (New) The method of claim 30, wherein the first portion of the first frame has an associated first transmission rate and an associated first length, the method further comprising:

<center>2</center>

using the first transmission rate and first length to determine an end time when the transmission of the first portion of the first frame will complete; and

requesting before the end time the second portion of the first frame from an upper medium access control entity.

34.   (New) The method of claim 30, further comprising:

receiving, at the lower medium access control entity, a first portion of a second frame, wherein the first portion is less than the frame length;

storing the first portion of the second frame in a second buffer;

initiating a transmission of the first portion of the second frame into the shared communications channel;

responsive to initiating the transmission of the first portion of the second frame, receiving at the lower medium access control entity a second portion of the second frame; and

storing the second portion of the second frame in the second buffer.

35.   (New) The method of claim 34, wherein the second buffer has a capacity less than the frame length.

36.   (New) The method of claim 34, further comprising:

upon completion of the transmission of the first portion of the second frame, transmitting the second portion of the second frame into the shared communications channel.

37.   (New) The method of claim 34, wherein the buffer has a first quality of service value and the second buffer has a second quality of service value, the method further comprising:

comparing the first quality of service value to the second quality of service value to determine an order of transmitting the first frame and the second frame.

38.   (New) The method of claim 34, wherein the first portion of the second frame has an associated second transmission rate and an associated second length, the method further comprising:

using the second transmission rate and second length to determine a second end time when the transmission of the first portion of the second frame will complete; and

requesting before the second end time the second portion of the second frame from an upper medium access control entity.

39.   (New) A lower medium access control entity, comprising:

a processor;

a data storage unit coupled to the processor, wherein the data storage unit comprises a partial buffer, wherein the partial buffer has a capacity less than a frame length; and

a transmitter coupled to the processor, wherein the transmitter has access to a shared communications channel,

wherein the processor is configured to

(i) receive a first portion of a first frame from an upper medium access control entity; (ii) store the first portion of the first frame in the first partial buffer; (iii) initiate the transmission of the first portion of the first frame into the shared communications channel via the transmitter; (iv) responsive to the initiating of the transmission, receive a second portion of the first frame from the upper medium access control entity; and (v) store the second portion of the first frame in the first partial buffer.

40.   (New) The entity of claim 39, wherein the processor is further configured to transmit the second portion of the first frame into the shared communications channel, via the transmitter, upon completion of the transmission of the first portion of the first frame.

41.   (New) The entity of claim 39, wherein the first portion of the first frame has an associated first transmission rate and an associated first length, and wherein the processor is further configured to (i) use the first transmission rate and first length to determine an end time when the transmission of the first portion of the first frame will complete; and (ii) request before the end time the second portion of the first frame from the upper medium access control entity.

42.   (New) The entity of claim 39, wherein the data storage unit further comprises a second partial buffer, and wherein the processor is further configured to: (i) receive a first portion of a second frame from the upper medium access control entity; (ii) store the first portion of the second frame in the second partial buffer; (iii) initiate the transmission of the first portion of the second frame into the shared communications channel via the transmitter; (iv) responsive to the initiating of the transmission, receive a second portion of the second frame from the upper medium access control entity; and (v) store the second portion of the second frame in the second partial buffer.

43.   (New) The entity of claim 42, wherein the second partial buffer has a capacity less than the frame length.

44.   (New) The entity of claim 42, wherein the processor is further configured to transmit the second portion of the second frame into the shared communications channel, via the transmitter, upon completion of the transmission of the first portion of the second frame.

45.   (New) The entity of claim 42, wherein the first portion of the second frame has an associated second transmission rate and an associated second length, and wherein the processor is further configured to (i) use the second transmission rate and second length to determine a second end time when the transmission of the first portion of the second frame will complete; and (ii) request before the second end time the second portion of the second frame from the upper medium access control entity.

46.   (New) The entity of claim 42, wherein the partial buffer has a first quality of service value, and the second partial buffer has a second quality of service value, and wherein the processor is further configured to compare the first quality of service value to the second quality of service value to determine an order of transmitting the first frame and the second frame.

47.   A lower medium access control entity, comprising:

a processor;

a data storage unit coupled to the processor, wherein the data storage unit comprises a plurality of partial queues, wherein each of the plurality of partial queues has a capacity less than a frame length, and wherein each of the plurality of partial queues has an associated class of service; and

a transmitter coupled to the processor, wherein the transmitter has access to a shared communications channel,

wherein the processor is configured to (i) receive from an upper medium access control entity a first portion of a first frame with a first class of service; (ii) receive from the upper medium access control entity a first portion of a second frame with a second class of service; (iii) store the first portion of the first frame in a first queue in the plurality of partial queues according

to the first class of service; (iv) store the first portion of the second frame in a second queue in the plurality of partial queues according to the second class of service; (v) determine that the first class of service is higher than the second class of service; (vi) initiate a transmission of the first portion of the first frame into the shared communications channel via the transmitter; (vii) in response to the initiation, receive a second portion of the first frame from the upper medium access control entity; (viii) store the second portion of the first frame in the first queue; (ix) upon completion of the transmission of the first portion of the first frame, transmit the second portion of the first frame into the shared communications channel via the transmitter; (x) upon completion of the transmission of the second portion of the first frame, initiate a transmission of the first portion of the second frame; (xi) in response to the initiation, receive a second portion of the second frame from the upper medium access control entity; (xii) store the second portion of the second frame in the second queue; and (xiii) upon completion of the transmission of the first portion of the second frame, transmit the second portion of the second frame into the shared communications channel via the transmitter.

48.   (New) The entity of claim 47, wherein the first portion of the first frame has an associated first transmission rate and an associated first length, wherein the first portion of the second frame has an associated second transmission rate and an associated second length, and wherein the processor is further configured to (i) use the first transmission rate and first length to determine an end time when the transmission of the first portion of the first frame will complete; (ii) request before the end time the second portion of the first frame from the upper medium access control entity; (iii) use the second transmission rate and second length to determine a second end time when the transmission of the first portion of the second frame will complete; and (iv) request before the second end time the second portion of the second frame from the upper medium access control entity.

49.   (New) The entity of claim 47, wherein the transmission of the second portion of the first frame begins immediately after the completion of the transmission of the first portion of the first frame such that the transmission of all of the first frame is continuous, and wherein the transmission of the second portion of the second frame begins immediately after the completion of the transmission of the first portion of the second frame such that the transmission of all of the second frame is continuous.